

**RHIZOECUS MEALYBUGS OF TEXAS, WITH DESCRIPTION OF A
NEW SPECIES (HOMOPTERA: PSEUDOCOCCIDAE)**

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Abstract.—*Rhizoecus brevirostris*, a new species of mealybug, is described from Texas. Notes are given for six additional members of the genus, three of which constitute new state records.

This paper contains the description of a new rhizoecine mealybug and notes on six additional species from the state of Texas. Unless otherwise indicated, the mealybugs were collected by R. D. Gordon and D. R. Miller, Systematic Entomology Laboratory, IIBIII, U.S. Department of Agriculture in May 1976. I am indebted to Dr. Miller for the privilege of studying this collection and for the facilities afforded me during these studies.

Rhizoecus apizacos Hambleton

Collected on *Bouteloua* sp. (Gramineae) at Iron Mt. Ranch, 8 mi N Marathon, Brewster Co., May 12, 1976. Heretofore known only from Tlaxcala State, Mexico, this collection is a new record for the United States.

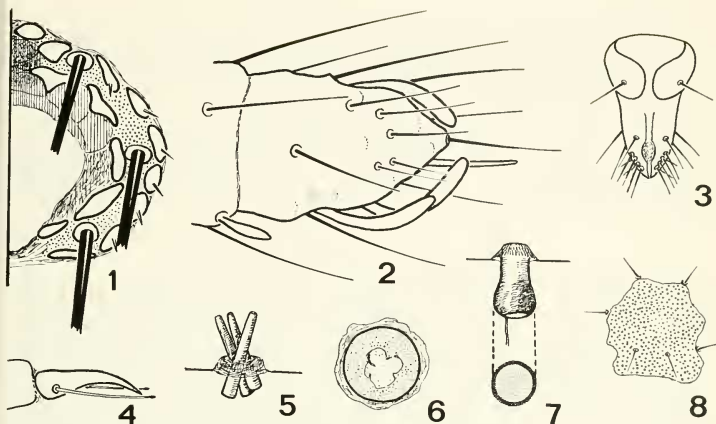
Rhizoecus bicirculus McKenzie

Several specimens collected from roots of *Jatropha dioica* (Euphorbiaceae) at Black Gap Wildlife Management Area, Brewster Co., May 8, 1976. Previously described and recorded from several localities in California.

Rhizoecus brevirostris Hambleton, NEW SPECIES

Figs. 1-8

Adult female.—Elongate oval, much narrowed anteriorly. Length, 1.74 mm; width, 0.71 mm. Antennae short, 6-segmented, narrowly separated; length of segments in microns: I, 22; II, 14; III, 15; IV, 11; V, 10; VI, 28; apical segment almost 2× as long as wide, with 3 rather stout, weakly clavate sensory setae, and 1 spinelike sensory seta near apex; segment V with 1 short, stout sensory seta. Interantennal space equal to length of apical



Figs. 1-8. *Rhizoecus brevis*, female. 1, Anal ring, right half. 2, Terminal segments of antenna. 3, Rostrum. 4, Hind claw. 5, Tritubular ceroris. 6, Circulus, dorsal. 7, Tubular duct, lateral and ventral. 8, Cephalic plate.

segment. Eyes small, weakly pigmented. Rostrum small, 42μ long, 28μ wide; rostral loop short, reaching nearly halfway to 2nd coxae. Cephalic plate irregularly quadrate, slightly longer than wide, about 33μ long, with several minute body setae. Dorsal ostioles inconspicuous, their rims narrow, weakly sclerotized.

Legs short, moderately stout, length of segments of hind pair in microns: Trochanter, 22; femur, 53; tibia, 46; tarsus, 28; claw, 14; claw digitules elongate, dilated at tips, extending beyond sharp claws.

Circulus depressed, width across its base 13μ , its orifice 11μ in diameter. Anal lobes unsclerotized, each with 3 elongate setae, the longest about 33μ long, and several body setae. Anal ring 44μ in diameter, its setae about 44μ long, longer and stouter than anal-lobe setae; outer portion of anal ring with 18 oval elongate cells, most with spicules; inner portion of ring with 10-12 larger, more irregular cells, some not clearly defined. Tritubular ceroris small, 15 occurring dorsally, 3 on head, 5 on thorax, 2 middorsally and 2-3 submarginally on each side of abdomen, their ducts about 6μ long. Multilocular disk pores absent. Tubular ducts prominent, short, stout, $5-6 \mu$ long, strongly sclerotized, widely distributed over entire body. Trilocular pores more abundant along body margins, sparse intersegmentally, near legs and mouthparts. Body setae inconspicuous, mostly short, evenly distributed.

HOLOTYPE FEMALE

5 mi E Study Butte, Big Bend National Park, Brewster Co., Texas, on *Gutierrezia* sp. (Compositae), May 6, 1976, R. D. Gordon and D. R. Miller. In U.S. National Museum.

Diagnosis.—*Rhizoecus brevirostris* may be distinguished from its closest relatives *R. apizacos* Hambleton by its clavate sensory setae, stouter, more numerous tubular ducts, oval, spiculate anal-ring cells and *R. simplex* (Hambleton) by its depressed circulus and fewer than one half the number of ceres borne only dorsally.

Rhizoecus gracilis McKenzie

Collected from an undetermined grass, Palo Duro, Canyon State Park, Randall Co., May 2, 1976; from *Atriplex* sp. (Chenopodiaceae), 12 mi E Alpine, Brewster Co., May 8, 1976; and from *Gutierrezia* sp. (Compositae), 13 mi N Sierra Blanca, Hudspeth Co., May 9, 1976. *Rhizoecus gracilis* was previously collected at Dumas, Moore Co. (Hambleton, 1976) by D. R. Miller in July 1970. This is one of the most widely distributed species of *Rhizoecus* occurring in the United States. *Rhizoecus gracilis*, originally described from California, is known to occur in 10 U.S. states and Mexico.

Rhizoecus leucosomus (Cockerell)

Collected from roots of an undetermined grass, Palo Duro, Canyon State Park, Randall Co., May 2, 1976. Reported previously at Corpus Christi, Nueces Co., from *Sorghum halepense* (Gramineae) (Hambleton, 1976) by S. Nakahara, August 4, 1971. The preferred hosts of *R. leucosomus* seem to be members of the Gramineae. This mealybug was described from New Mexico, and it occurs from California to Virginia.

Rhizoecus mexicanus (Hambleton)

This species was taken from undetermined grasses at Black Gap Wildlife Management Area, Brewster Co., May 8, 1976, and 50 mi E Sierra Blanca, Hudspeth Co., May 9, 1976. Previously reported from an unknown locality in Texas (Hambleton, 1976). *Rhizoecus mexicanus* was described from specimens intercepted in San Francisco, California, from an unknown locality in Mexico.

Rhizoecus solani (Hambleton)

The first record of this species for the United States is a collection from *Cylindropuntia* sp. (Cactaceae) at Langtry, Val Verde Co., May 13, 1976. Originally described from Guatemala, *R. solani* also is known from Mexico.

LITERATURE CITED

- Hambleton, E. J. 1976. A revision of the New World mealybugs of the genus *Rhizoecus*. U.S. Dept. Agric. Tech. Bull. 1522, 88 pp.